

ASAP - General

Dart Aerospace Ltd.

Date: Friday, 19/01/2007 8:50:47 AM
 User: Linda Lacelle

Process Sheet

| | | | |
|-----------------------|------------------------------------|------------------|----------------|
| Customer | : CU-DND001 Department of National | Drawing Name | : STIFFENER |
| Job Number | : 30330 | | |
| Estimate Number | : 12658 | | |
| P.O. Number | : N/A | Part Number | : G106101 |
| This Issue | : 19/01/2007 S.O. No. : N/A | Drawing Number | : G10610 REV A |
| Prsht Rev. | : NC | Project Number | : N/A |
| First Issue | : N/A Type : SMALL /MED FAB | Drawing Revision | : A |
| Previous Run | : N/A | Material | : N/A |
| Written By | : <u>W</u> | Due Date | : 26/01/2007 |
| Checked & Approved By | : <u>W</u> | Qty: | 10 Um: Each |
| Comment | : Est Rev:A New Issue 07-01-18 JLM | | |

Additional Product

Job Number:



| | | |
|---------|-----------------------|---------------|
| Seq. #: | Machine Or Operation: | Description : |
|---------|-----------------------|---------------|

| | | |
|-----|-------------|--------------------|
| 1.0 | M2024T3S040 | 2024-T3 .040 sheet |
|-----|-------------|--------------------|



Comment: Qty.: 0.1510 sf(s)/Unit Total : 1.5100 sf(s)

2024-T3 .040 sheet

Batch: M103639 (C)

M102448 (9)

| | | |
|-----|-----------|----------------|
| 2.0 | WATER JET | FLOW WATER JET |
|-----|-----------|----------------|



Comment: FLOW WATER JET

1-Cut as per Dwg G10610

Dwg Rev: 106101

Prog Rev: A

SAD 07/01/22 (10)

2-Deburr if necessary

****USE SAME CUTTING FILE FOR -1 & -2****

| | | |
|-----|-----|--|
| 3.0 | QC2 | INSPECT PARTS AS THEY COME OFF MACHINE |
|-----|-----|--|



Comment: INSPECT PARTS AS THEY COME OFF MACHINE

| | | |
|-----|-----|--------------|
| 4.0 | QC8 | SECOND CHECK |
|-----|-----|--------------|



Comment: SECOND CHECK

| | | |
|-----|-------------|-------------------------------|
| 5.0 | SMALL FAB 1 | SMALL & MEDIUM FAB RESOURCE 1 |
|-----|-------------|-------------------------------|



Comment: SMALL & MEDIUM FAB RESOURCE 1

SB John 07/01/23

10

Date: Friday, 19/01/2007 8:50:47 AM
User: Linda Lacelle

Process Sheet

Customer: CU-DND001 Department of National

Drawing Name: STIFFENER

Job Number: 30330

Part Number: G106101

Job Number:



Seq. #:

Machine Or Operation:

Description :

2-Formas per Dwg G10610

SD 07/01/25 10

6.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

1207/01/23 (10)

7.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1

YL 07/01/24 x10

8.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

P 7/01/24 (10)

9.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: _____

EPB 07/01/25 (10)

P 7/01/25

10.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

SD 07/01/30 (10)

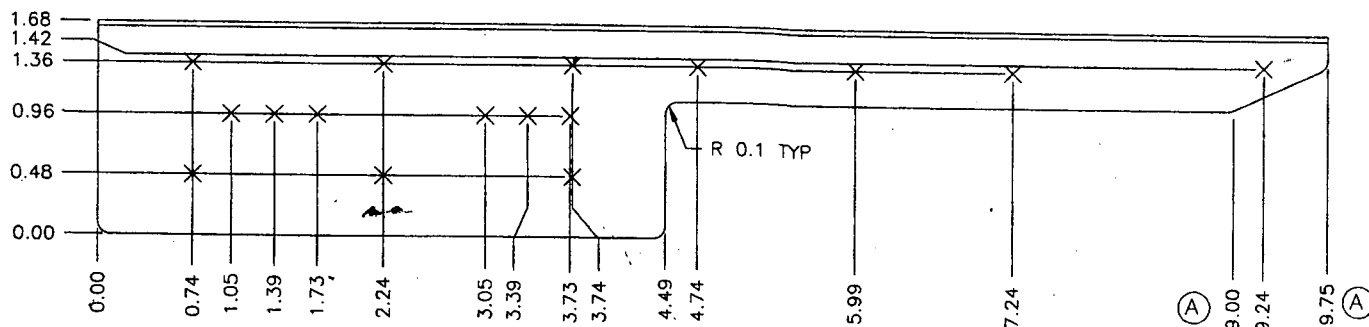
Job Completion



U 07-01-30

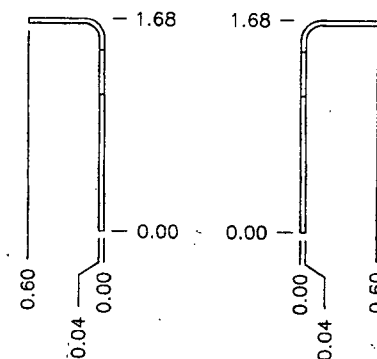
w/0 30330

| REVISION | | DATE | APPROV. |
|----------|---|--------|---------|
| REV | DESCRIPTION | | |
| A | 9.75 WAS 8.98, 9.00 WAS 8.25, ADDED MATERIAL CALLOUT FOR -3 | 4/8/01 | CLB |



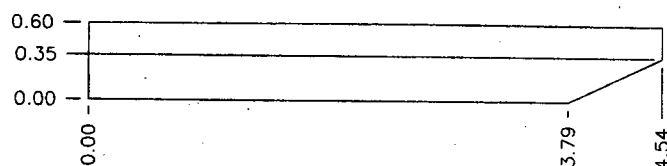
-1
STIFFENER

-2
(OPPOSITE BEND)



-1
STIFFENER

-2
STIFFENER
(OPPOSITE BEND)



-3
SHIM

(0.05)

NOTES:

UNLESS OTHERWISE NOTED.

- MAT'L:
-1 ALUM, 0.04 THICK, 2024-T4 AU4G1.
-2 ALUM, 0.04 THICK, 2024-T4 AU4G1.
-3 ALUM, 0.05 THICK, 2024-T4 AU4G1.
- INSIDE BEND RADIUS: 3T, 90°±5°.
- FINISH: ETCH, ALODINE PER MIL C5541-1A, PAINT WITH ACRYLIC URETHANE.
- ALL HOLE LOCATIONS ARE RECOMMENDED REFERENCE ONLY. FINAL LOCATIONS TO BE DETERMINED AT INSTALLATION. MATCH DRILL PARTS AT ASSEMBLY.

| | | | | | |
|---|----------|-----|------|--------|---|
| BREAK ALL EDGES UNLESS OTHERWISE SPECIFIED DIMENSION ARE IN INCHES DIMENSIONAL TOLERANCES 3 DECIMALS ± 2 DECIMALS ± .020 1 DECIMAL ± .050 ANGULAR ± 1° | DRAWN | DT | DATE | 4/3/98 | GENEVA AVIATION 10108 - 32nd Ave W Everett, WA 98204 (425)353-7400 FAX(425)347-7100 |
| | CHECK | | DATE | | |
| | DESIGN | | DATE | | |
| | APPROVAL | DCF | DATE | 4/3/98 | |
| THIS DRAWING INCLUDES INFORMATION PROPRIETARY TO GENEVA AVIATION AND SHALL NOT BE USED OR DUPLICATED BY ANYONE WITHOUT THE WRITTEN PERMISSION OF GENEVA AVIATION INC. | | | | | TITLE REAR SHOULDER HARNESS INSTALLATION MODIFICATION |
| | | | | | DWG NO. G10610 REV A |
| | | | | | PRO NO. GA159 SIZE B SCALE 1/1 SHT. 1 OF 2 |

m103039

0:
COPPER & BRASS SALES
404 CENTAURA COURT
SPARTANBURG, SC 29303

KAISER ALUMINUM

Trentwood Works - Spokane, WA 99215
Phone: (800) 367-2586

CERTIFIED TEST REPORT

Serial Number
4071571

SOLD TO:
COPPER & BRASS SALES
ATTN: ACCOUNTS PAYABLE
P.O. Box 5116
SOUTHFIELD, MI 48086

| | | | | | | |
|-------------------------------|---------------------------|---------------------------|-----------------------------------|---------------------|-------------------------------|---|
| CUSTOMER PO NUMBER: CK5761 | | WORK PACKAGE: | CUSTOMER PART NUMBER: 061825-6 | | SHIP RUN/LOAD ID: 100743/6 | GOV'T CONTRACT NUMBER: 061825-6 |
| KAISER ORDER NO: 1036749 | LINE ITEM: 1 | SHIP DATE: 20-JUL-2006 | ALLOY: 2024 | CLAD: BARE | TEMPER: T3 | PRODUCT DESCRIPTION: MILL FINISH SHEET |
| WEIGHT SHIPPED: 5007 LB | QUANTITY: 177 PCS EST. | B/L NUMBER: 209070 | GUAGE: 0.0400 IN | WIDTH: 48.000 IN | LENGTH: 144.000 IN | |

Certified Specifications

AMS 4037/RevN

AMS-QQ-A-250/4/RevA

ASTM B 209/Rev04

Test Code: 1504

Test Results

| | | | | | | | | | | | |
|--------------------|--------|------------------|------|----------------------------|------|----------------------------|------|--------------|------|------|-----------|
| Lot: 366195A6 | | Cast 336 | | Drop 63 | | Ingot 2 | | | | | |
| Tensile: | Temper | Dir / # Tests | | Ultimate KSI (MPA) | | Yield KSI (MPA) | | Elongation % | | | |
| | T3 | LT / 2 (Min:Max) | | 67.6 : 67.7 (466 : 467) | | 45.0 : 45.2 (310 : 312) | | 16.1 : 18.0 | | | |
| Chemistry: | SI | FE | CU | MN | MG | CR | ZN | TI | V | ZR | OTHER |
| Actual | 0.09 | 0.27 | 4.60 | 0.58 | 1.32 | 0.01 | 0.21 | 0.02 | 0.01 | 0.01 | TOT 0.04 |
| ALLOY LIMITS | | | | | | | | | | | |
| Chemistry: | SI | FE | CU | MN | MG | CR | ZN | TI | V | ZR | OTHER |
| 2024 MIN | 0.00 | 0.00 | 3.80 | 0.30 | 1.20 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | EACH 0.05 |
| MAX | 0.50 | 0.50 | 4.90 | 0.90 | 1.80 | 0.10 | 0.25 | 0.15 | 0.05 | 0.05 | TOT 0.15 |
| Aluminum Remainder | | | | | | | | | | | |

G10610-1 B30330

CERTIFICATION

KAISER ALUMINUM FABRICATED PRODUCTS, LLC (KAISER) HEREBY CERTIFIES THAT METAL SHIPPED UNDER THIS ORDER WAS MELTED AND MANUFACTURED IN THE U.S.A. AND HAS BEEN INSPECTED, TESTED, AND FOUND IN CONFORMANCE WITH THE REQUIREMENTS OF THE APPLICABLE SPECIFICATIONS AS INDICATED HEREIN. ALL METAL WHICH IS SOLUTION HEAT-TREATED COMPLIES WITH AMS 2772. ANY WARRANTY IS LIMITED TO THAT SHOWN ON KAISER'S STANDARD GENERAL TERMS AND CONDITIONS OF SALE. TEST REPORTS ARE ON FILE, SUBJECT TO EXAMINATION. TEST REPORTS SHALL NOT BE REPRODUCED EXCEPT IN FULL, WITHOUT THE WRITTEN APPROVAL OF KAISER ALUMINUM FABRICATED PRODUCTS, LLC LABORATORY. THE RECORDING OF FALSE, FICTITIOUS, OR FRAUDULANT STATEMENTS OR ENTRIES ON THE CERTIFICATE MAY BE PUNISHED AS A FELONY UNDER FEDERAL LAW. ISO-9001:2000 CERTIFIED

BILL POYNOR, LABORATORIES SUPERVISOR

Bill Poy

061825

m102948

VPK METAL
DART AEROSPACE
 ALUMINUM SHEET 2024 T3
 .0400 Nom X 48.0000" X 144.0000"
 PART NO.

PO/Rel PO00002219

We certify that this is a true copy of the report
 furnished by the producer of the metal, or data
 resulting from tests made in approved labs.

Signed by: _____

Attn: _____

Certificate of Mill Test Results

BL PEC-432265-001

19Oct06

Pg 1/2

CERTIFIED INSPECTION REPORT

Alcoa Inc.

PITTSBURGH, PA DAVENPORT WORKS

Ship From:

We hereby certify that the material covered by this certificate has been inspected with, and has been found to meet, the
 applicable requirements described therein, including any specifications forming a part of the description and that samples
 representative of the material met the composition limits and had the mechanical properties shown on the face of this sheet.
 Per:



Mark J. Vratsek
 Director of Manufacturing Davenport Works



Kenton P. Young
 Quality Assurance Manager

617430

Ship Date

0

B.L. No.

2006-05-30

1503480

Invoice No.

00000

Alcoa No. Item

1881283-1

Page 1

P.O. No./Govt Contract No.

CJ3347

Customer Mfg Order

C&B

DS-81283-1

Ship To: COPPER BRASS SALES
 1715 WOODLAND DRIVE
 SALINE, MI 48176

Item Description

0.0400 IN TH X 48.000 IN W X 144.000 IN LN CAT D 126137 (N) A/T 2024-
 T3 FLAT SHEET MILL FINISH ((P/N 061825-6)) PER AMS-QQ-A-
 250/4 REV A & (EX. OILMARK)
 AMS4027 REV N & (EX. MARK) ASTM B209 REV 04
 ((MARKED)) INTERLEAVED MAX GROSS
 SKID WGT: 4500 LB QUAN TOL +/-30 %
 CQR D126137 REV 22 CUST REQ 06-05-
 28 *** W/E 06-06-03 ***

| Num | Package Ticket | Lot | Weight | Quantity | UOM | Pc Id/Serl |
|-----|----------------|--------|--------|----------|-----|------------|
| 1 | 383823 | 718351 | 3902 | 142 | PC | |

Notes for CQR: D126137.22

PRODUCT PRODUCED AND MARKED TO THE REQUIREMENTS OF AMS-QQ-A-250/4 ALSO MEETS THE REQUIREMENTS OF QQ-A-250/4E, AMENDMENT 2.
 PRODUCT PRODUCED AND MARKED TO THE REQUIREMENTS OF QQ-A-250/4E AMENDMENT 2 ALSO MEETS THE REQUIREMENTS OF AMS-QQ-A-250/4.

CQR: D126137.22 -Specification Limits

| Temp | Dir | Max | Min | UTS KSI | TYS KSI | EL4D PCT |
|------|--------------|-----|-----|------------|------------|-------------|
| T3 | Long Transv. | | | 63.0 | 42.0 | 15 |

| Chemical Composition | Other Elements | | | | | | | | | | Total Aluminum |
|----------------------|----------------|-----|-----|-----|-----|-----|-----|-----|-------|-----|----------------|
| | SI | FE | CU | MN | MG | CR | ZN | TI | Other | | |
| Alloy 2024 | Max | .50 | .50 | 4.9 | .9 | 1.8 | .10 | .25 | .15 | .05 | .15 |
| | Min | | | 3.8 | .30 | 1.2 | | | | | |

REMAIN

Lot: 718351 -Mechanical, Physical, Metallography, Quantometer Results

| Temp | Dir | No. Test | Max | Min | UTS KSI | TYS KSI | EL4D PCT |
|------|--------------|----------|-----|-----|------------|------------|-------------|
| T3 | Long Transv. | 6 | | | 67.6 | 45.5 | 20.2 |
| | | | | | 66.9 | 44.6 | 18.5 |

G10610-1
B 30930